

TERRAMODEL NOTE 8

Preparing Drawings

Objective--

The objective of this TM Note is to prepare a scaled drawing including a border, title block, bar scale, north arrow, and text. You will learn to use the sheet viewing mode and dynaviews.

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TERRAMODEL Note 8--Preparing Drawings

TERRAMODEL has been designed to eliminate errors, reduce redundancy, and make drafting a natural by-product of the design. TERRAMODEL allows you to model the design and draft portions of the design without duplication. To do this, TERRAMODEL utilizes a sheet viewing mode for drafting and dynaviews (dynamic views) to see portions of the project from this viewing mode.

Sheet viewing mode is simply a display of x and y coordinates, at a scale of 1" to 1'. It is the viewing mode where plans and profiles may be combined together. Notes that are specific to a particular sheet may be placed directly on the desired sheet.

The easiest way to understand sheet viewing mode and dynaviews is to work through an example. The following steps will be illustrated in this example:

1. Draw a box around your drawing
2. Change to sheet viewing mode
3. Import a border and title block
4. Create a dynaview
5. Import a north arrow and bar scale
6. Import an ASCII text file (stage-storage table)
7. Add text to the title block

Begin this tutorial with a contour map that has been developed in TERRAMODEL. If you do not have a current project, use the file Tmnote8 as an example.

[File] – [Open...]

File name: **Tmnote8.pro**

[Open]

1. Draw a box around your drawing

To prepare a drawing of the reservoir site, start by drawing a box around the portion that you want included in the drawing. This could be the whole project (the entire reservoir area) or a portion of the project (the structure site).

Hint: You can draw a box using either the **BOX** or the **PLOTbox** command. As a general rule, use the **BOX** command when you do not wish to have the box show up on your final drawings.

Draw a box on a new layer called BOX, give it the color 1 (make sure your pen settings are set so that color 1 will not print), and make it the current layer.

Select the down arrow for the box to the right of the L Set box

[New]

Name: **BOX**

Choose color 1 for the object Color and your choice for the Pt Color

[OK]

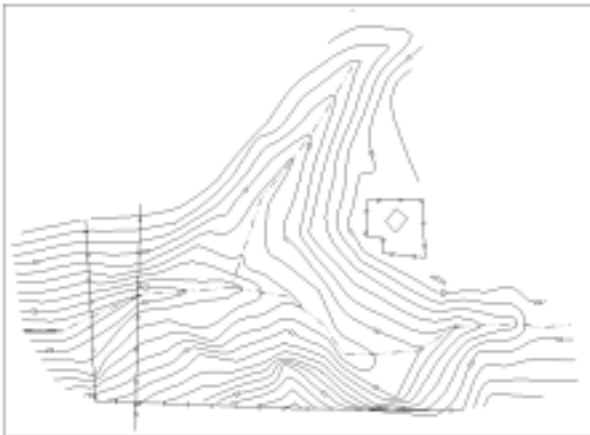
[OK]

BOX is now the current layer. Draw the box.

[Draw] – Pline – **[BOX]**

Corner 1: **[]** Select the first corner

Corner 2: **[]** Select the second corner



2. Change to sheet viewing mode

Change the display to the sheet viewing mode.

[Window] – **[3 Sheet: Tmnote8]**

You now have a blank screen. Imagine this as your drafting table.

Note: Some states (Nebraska being one) have prototype files set up so that when you switch to sheet viewing mode, you will not have a blank screen. Instead you will find sheet borders already imported and ready for dynaviews. This note will now show you how to import borders into files that do not already have a standard sheet system. For more information on creating and working with prototype files, visit Terramodel Help.

3. Import a border and title block

A D-size sheet has been prepared for you. You can use this sheet, draw your own border, or use none at all. For this example, we will use the prepared D-sized border.

[File] – Misc. Import/Export – [TMX Import]

File: The first box is for the location of the file we wish to import,

[Browse] to find where you saved dborder.tmx while downloading this note

File name: dborder.tmx

[Open]

[Read]

The border and title block will show up somewhere on or off the screen. Use the **All** command to display the border on the entire viewing area.

[View] – **[All]**

Note: The white outside box is the edge of the D-size drafting paper. It will be plotted as a single line and is used to trim the paper to a NRCS standard D-size sheet. The pink inside box is the actual border and will be plotted as a bold line.

WARNING! The tmx images always come in at the same coordinates, therefore you need to **MO**ve the first border prior to importing another.

4. Create a dynaview

Now you are ready to place the drawing of your reservoir area on the drafting sheet. Use the **DY**naView command.

[Draw] – **[DY**naView]

[Window] – [**1** Plan: Tmnote8]

Box: [**1**] Select the box we drew in step 1.

[Window] – [**3** Sheet: Tmnote8]

Loc: [**1**] Select the corner where you want the reservoir drawing to be

Note: The corner you select should be the same corner where you started drawing the box. For example, if Corner 1 of your box was the upper left-hand corner, you should choose a spot in the upper left-hand corner of the drafting sheet to place your dynaview.

Scale: **40**

Rot: **0 00 00**

[OK]

Notice the topographic map is too large for the drafting sheet:



At this point, you have two choices. First, if the map will fit, you can reposition it at the same scale. Or second, if it is too large, you can use a different scale.

Repositioning:

[Modify] – [**M**Ove]

3D ☐

Objs: [☐] Select the corner of the box that defines the dynaview

From: [☐] Select a point to move the box from

To: [☐] Select a point to better fit the box onto the drawing sheet

Changing the scale:

It is recommended that you change the scale of the dynaview by changing the plot scale in the Plan View. This will ensure that objects will show up in the Sheet View in the same scale that you drew them in Plan View and clear up some of the confusion with keeping track of scale (this is especially helpful with text heights).

First erase the current dynaview and then we will create a new one.

[Edit] – [**DE**Lete]

Objs: [☐] Select the corner of the box that defines the dynaview

[**OK**]

[Window] – [1 Plan: Tmnote8]

[Settings] – [View settings...]

Plot scale: **50**

Leave the other settings as defaulted

[**OK**]

[Draw] – [**DY**naView]

Box: [☐] Select the box

[Window] – [3 Sheet: Tmnote8]

Loc: [☐] Select the corner where you want the reservoir drawing to be

Scale: **50**

Rot: **0 00 00**

[**OK**]

5. Import a north arrow and bar scale

Add a north arrow to the drawing. TERRAMODEL has ten north arrows in its symbol library (na1, na2, na3, na4, na5, na6, na7, north, north arrow type 1, and north arrow type 2). Make a layer called TEXT to put the north arrow on and make it the current layer.

Select the down arrow for the box to the right of the L Set box

[New]

Name: **TEXT**

Choose colors of your choice for the layer

[OK]

[OK]

[Draw] – **[BLOck]**

[Insert]

Block name: **na2**

[Insert]

Loc: **[]** Select where you would like to place the north arrow

Scale: **1.00**

Rot: **0 00 00**

[Insert]

[Close]

Add a 50 bar scale to your drawing. TERRAMODEL also has bar scales in its symbol library (5, 10, 20, 30, 40, 50, 100, 200, 300, 400, 500, 1000; named 5scl, 10scl, etc).

(We are still in the block command)

Block name: **50scl**

[Insert]

Loc: **[]** Select where you would like to place the bar scale

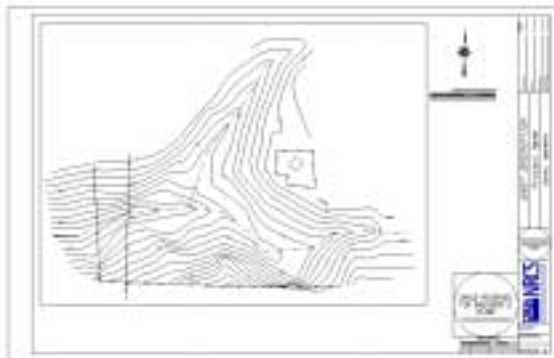
Scale: **1.00**

Rot: **0 00 00**

[Insert]

[Close]

[Close]



You can use the **MO**ve command to move the blocks if you wish. Move the bar scale as an exercise:

[Modify] – [**MO**ve]

3D ☐

Objs: [☐] Select the point in the upper left hand corner of the scale (this point defines the block)

From: [☐] Select the center of the bar scale

To: [☐] Select a new location, centered beneath the north arrow

Window in to get a closer look at the bar scale and north arrow.

[View] – [**Z**oom]

From: [☐] Select first corner

To: [☐] Select second corner

If the drawing is plotted to an 11x17 sheet, it will be plotted half its current size. This makes the statement 1" = 50' incorrect above the bar scale. We will explode the block and erase this text.

[Edit] – [**EXP**lode]

Lines, text, or blocks: [☐] Select the point that defines the block

✓Delete old

[**EXP**lode]

The block is now made up of many separate pieces instead of one unit referenced to the definition point. We can now make changes to the text on the top of the scale.

[Edit] – [**ED**it object]

Obj: [☐] Choose the text

The Edit text object window appears

In the typing space, remove 1" = 50'

[**OK**]

[**C**lose]

View the entire project:

[View] – [**A**ll]

6. Import an ASCII text file

Import the stage storage table you downloaded with this note and place it in the upper left hand corner of the drawing:

[File] – Misc. Import/Export – [Text Import]

[**B**rowse] to find where you saved note8.txt while downloading this note

File name: **note8.txt**

[**O**pen]

[**S**tyl

Choose **tmodel**f

[Edit]

Make the Height **0.12**

[OK]

Loc: [] Select a point in the upper left of the drawing sheet

[Cancel]

Window in to see the table:

[View] – [Zoom]

From: [] Select first corner

To: [] Select second corner

ELEV feet	DEPTH feet	AREA squares	VOLUME cu-ft	SUMVOL cu-ft
58.0	2.0	0.0	0.0	0.0
60.0	2.0	0.1	0.3	0.3
62.0	2.0	0.2	0.6	0.9
64.0	2.0	0.6	1.5	2.4
66.0	2.0	0.9	2.6	5.0
68.0	2.0	1.7	4.5	9.5
70.0	2.0	2.8	6.5	16.0
72.0	2.0	3.7	8.4	24.4
74.0	2.0	4.7		

View the entire project:

[View] – [All]

7. Edit text and add text to the title block

Window in on middle section of the title block and edit the existing text.

[View] – [Zoom]

Corner 1: [] Select the upper left hand corner of the middle section

Corner 2: [] Select the lower right hand corner of the middle section

[Edit] – [Edit object]

Obj: [] Select "SHEET DESCRIPTION" from the title block

Edit text object window

Change SHEET DESCRIPTION to **PLAN VIEW**

[OK]

Obj: [] Select "Project Name" from the title block

Edit text object window

Change Project Name to **Krueger Dam**

[OK]

Obj: [] Select "County, Nebraska" from the title block

Edit text object window

Add **Webster** in front of County, Nebraska
[OK]
[Close]

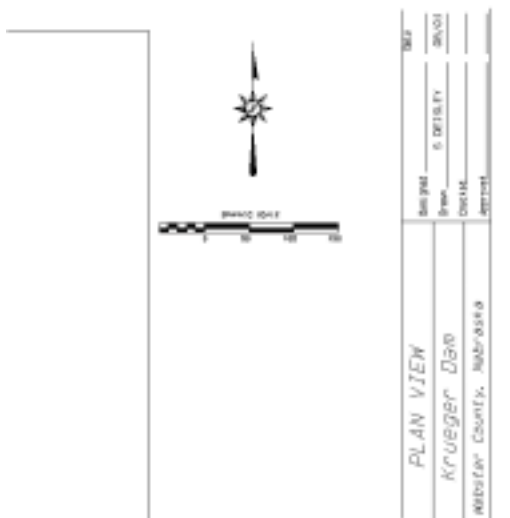
Move the view to add text the name and date section of the title block.

[View] – [PA]n
From: [] Select a point near the top of the screen
To: [] Select a point near the bottom of the screen

[Draw] – Text – [Single line text]
Your Name will be typed into the first box
[Style]
tmodel should be highlighted, choose [Edit]
Change the Height to **0.15**
[OK]
[OK]

[Rot]
Rotation: **N0 00'00"E**
[OK]
Loc: [] Select a spot along the line next to "Drawn"

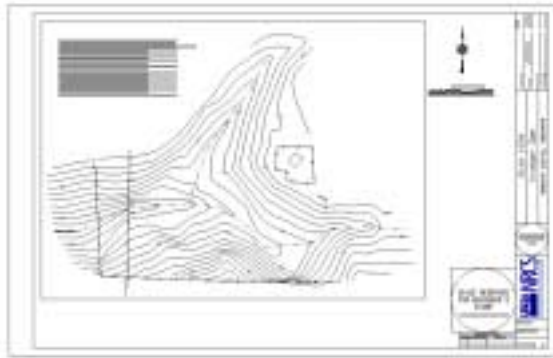
Type **Today's Date** into the first box
The rotation will remain the same as what we just set
Loc: [] Select a spot along the Date line across from "Drawn"
[Close]



You can continue this process to add the rest of the text to the title block.

View the entire drawing:

[View] – [All]



Don't forget to save your work!

Note: Use the **SAVEAS** command to change the filename from Tmnote8 so the original file will be available for future exercises.

WARNING! Using the **SAve** command will overwrite the original Tmnote8 file and make it unusable for future tutorials.

[File] – [Save project as...]
File name: **FILENAME**
[Save]

The drawing is now ready to be plotted.